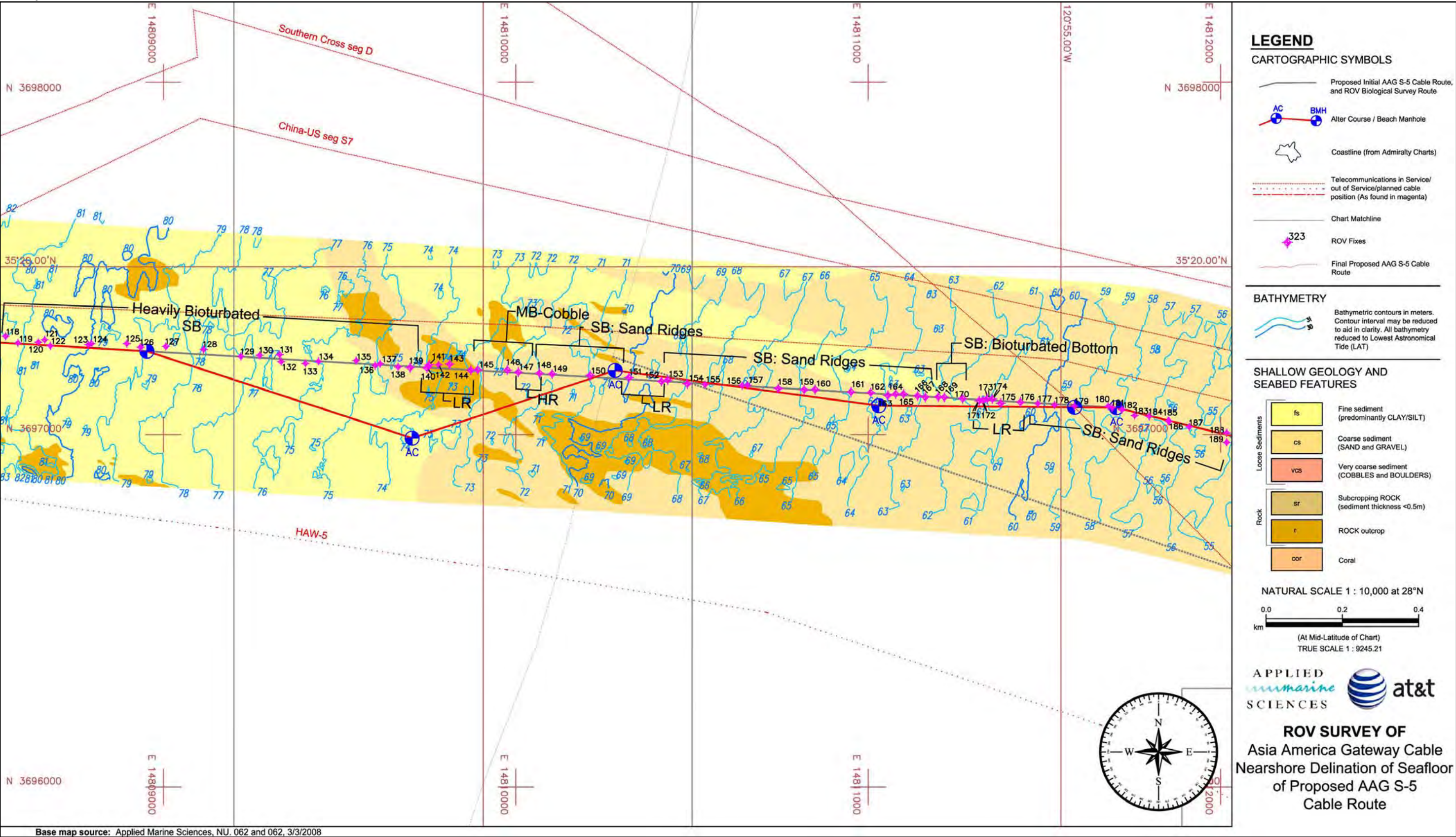


Source AT&T 2008

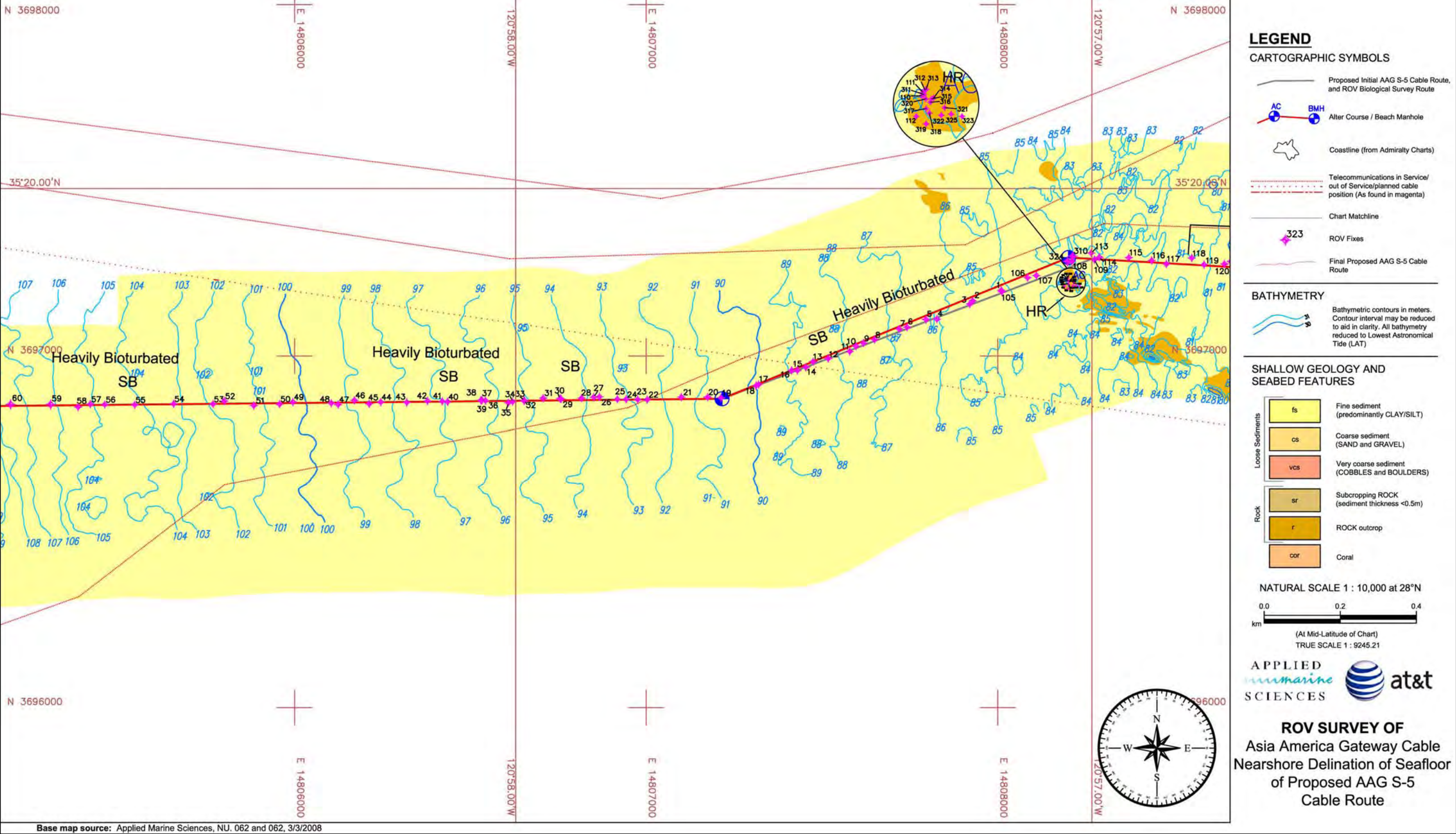
- 1 Back of Figure 4.3-7



Base map source: Applied Marine Sciences, NU. 062 and 062, 3/3/2008

Source AT&T 2008

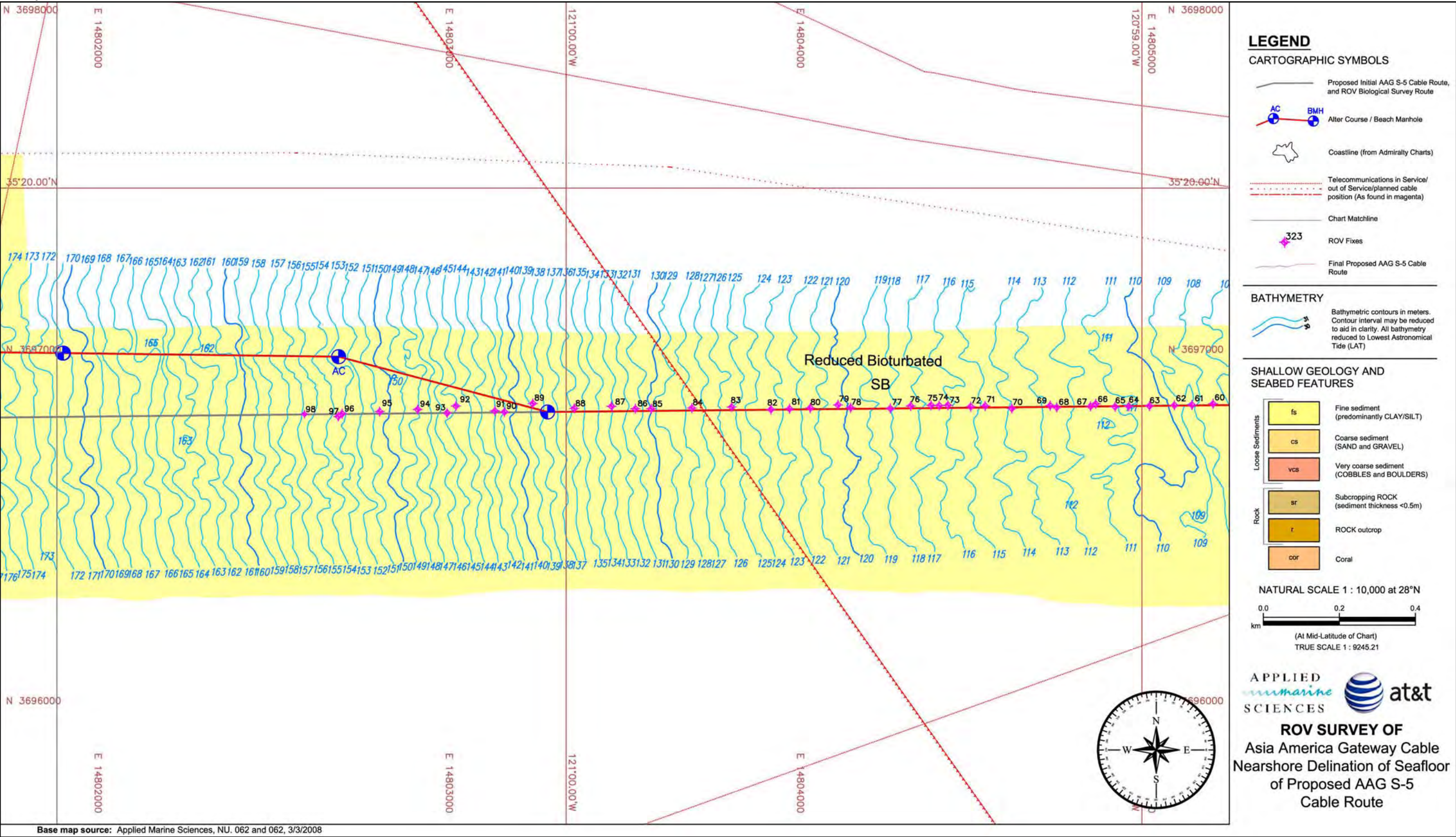
- 1 Back of Figure 4.3-8



Base map source: Applied Marine Sciences, NU. 062 and 062, 3/3/2008

Source AT&T 2008

- 1 Back of Figure 4.3-9



Source AT&T 2008

- 1 Back of Figure 4.3-10

Table 4.3-7. ROV Survey Segments by Water Depth and Habitat Type

Survey Segment	Water Depth in Feet (Meters)	Habitat Types Recorded by Side Scan Sonar and/or Observed in ROV Survey
A-B	70 to 105 (21 to 32)	Fine to medium sediment, cobble and low-relief rocky substrate
C	90 to 105 (27 to 32)	Low- and high-relief rocky substrate, mixed bottom, sandy sediment
D	105 to 250 (32 to 76)	Course sand and cobble mix, some low- and high-relief rocky substrate
E	250 to 280 (76 to 85)	Fine sediment, some low-relief rocky substrate
F	280 to 502 (85 to 153)	Fine sediment

Table 4.3-8. Seafloor Cover by Habitat Type along Proposed Route

Habitat Type	Percent of Survey Area	Depth Range in Feet (Meters)
Sedimentary Substrate	85.6	69 to 502 (21 to 153)
Fine and Medium Sand	14.1	
Fine Sand and Silt	51.3	
Course Sand Waves and Troughs	20.2	
Mixed-Bottom	8.9	
Sand and Cobble	8.9	89 to 279 (27 to 85)
Rocky Substrate	3.5	
Low-relief (<1 m)	3.4	
High-relief (>1 m)	0.1	

Source: Adapted from AMS 2008.

To reduce the amount of rocky habitat that could have been crossed by the proposed cable, two relatively major revisions to the originally proposed cable route were completed following analysis of the data collected during the ROV survey. That revised route is the proposed route for the Project. In the nearshore, the alignment was shifted approximately 0.06 mi (0.10 km) to the east along a 0.8 mi-long (1.3 km) area within Segment A in water depths ranging from 92 to 105 feet (28 to 32 m) that trends to the north and northwest (generally parallel to the shoreline). Offshore, in water depths ranging from 230 to 394 feet (70 to 120 m) the route was shifted up to 0.3 mi (0.4 km) to the south.

1 *Segment A*

2 Fine to coarse grain sedimentary habitats constitute approximately 90 percent of the
3 seafloor within the approximately 0.6 mi-long (1 km) area (water depths from 40 to 82
4 feet (12 to 25 m). An area of rock outcrop is present near the northwest end of the
5 segment (water depths 68 to 79 feet [21 to 24 m]). With the revised routing, the
6 proposed cable route does not cross rock within this segment but comes to within
7 approximately 100 feet (31 m) of the southern edge of the rock feature.

8 *Segment B*

9 This segment extends approximately north about 0.9 mile (1.4 km) in water depths
10 ranging from 88 to 105 feet (27 to 32 m) and is characterized by fine grain sediments,
11 which comprise approximately 60 percent of seafloor habitat within this segment. Rock
12 features (covering approximately 30 percent) and coarse sediments (approximately 10
13 percent) are most common along the eastern and western boundaries of the area
14 covered by the side scan sonar survey. The cable does not cross rock within this
15 segment, but appears to cross an area of coarse sediments or cobbles at the northern
16 end of the segment (water depth approximately 85 feet [26 m]). The proposed cable
17 route is within approximately 30 feet (10 m) of a low-relief rock feature in that area.

18 *Segment C*

19 This is the shortest of the six segments, extending to the northwest and west for
20 approximately 0.3 mi (0.5 km). High and low-relief rock and coarse sediments,
21 including cobbles, account for approximately 50 percent of the seafloor habitat with the
22 other half of the surveyed area comprising fine grain sediments. While no high-relief
23 rock features are crossed by the cable within this segment, approximately 300 feet (92
24 m) of mixed bottom and coarse sediments are along the proposed alignment near the
25 northeastern corner of the route.

26 *Segment D*

27 This is a 2.4 mi-long (3.9 km) west-oriented segment that extends between the 100 and
28 240-foot (31 and 74 m) isobaths. Approximately 20 percent of the survey area is rock,
29 consisting of mostly low-relief reefs and ridges, most common at the eastern and
30 western ends of the segment's south boundary. The remaining 80 percent of the
31 seafloor within this segment comprises coarse sand and gravel, with a 300-foot-long (92
32 m) area of "highly bioturbated" fine sediments in approximately 203 feet (62 m) of water.

Except for a 165-foot long (50 m) area of low relief rock near the western end of this segment, the proposed cable route traverses sedimentary and mixed bottom habitat. In approximately 230 feet (70 m) of water, the proposed route changes from a westerly to a southwesterly orientation to avoid a substantial area of higher relief rock in water depths of between 240 and 250 feet (73 and 76 m).

Segment E

Extending in a west-southwest direction, this approximately 1.2 mi-long (1.9 km) segment is located in water depths between 250 and 280 feet (76 and 85 m). The seafloor within the side scan sonar survey area consists of approximately 95 percent fine-grain sediments; isolated low and high-relief rock features were observed between the 245- and 280-foot (75 and 85 m) isobaths. Sediments along the proposed cable route within this segment were characterized as “heavily bioturbated” (AMS 2008). With the revised routing, the cable does not cross any rock features within these water depths, but passes approximately 100 feet (31 m) to the north of a high-relief feature in 275 feet (84 m) of water.

Segment F

This segment, the furthest west that the ROV surveyed, extends approximately 1.7 mi (5 km) between water depths of 280 and 500 feet (85 and 153 m). The side scan sonar data indicate that rock is present within this area and the sediments are characterized as fine (clays and silts) ranging from highly bioturbated in the shallower areas to a depth of approximately 340 feet (104 m) to less disturbed in the deeper portions. The proposed cable route does not cross any rock within this segment.

The following is a description of the macroepibiota that were observed within the various habitats as reported in the ROV survey report (AMS 2008).

Sedimentary Substrate Invertebrates and Fish

Segments A, B, and C. In water depths less than 100 feet (31 m) where the surficial sediment was characterized as fine to medium-grain sand with shell hash, the most common epifauna observed were the ornate tube worm (*Diopatra ornata*), cancer crabs (*Cancer* sp. and *C. gracilis*), and a sea pen (*Stylatula elongata*). Three species of seastars, *Asterina miniata*, *Mediaster aequalis*, and *Pisaster brevispinus* were more abundant in the sediments of Segment C. In water depths less than 100 feet (31 m) the fish observed in sedimentary substrate areas were cuskeels (*Chilara* sp.), flatfishes

1 including sanddabs (*Citharichtys* sp.), tubesnout (*Aulorhynchus flavidus*), unidentified
2 rockfish (*Sebastes* sp.), and anchovies (*Engraulis mordax*) in the water column. Squid
3 (*Loligo* sp.) were also observed in the water column.

4 Segments D, E, and the inshore portion of F. The sedimentary habitat in water depths
5 between 100 and 340 feet (31 and 104 m) ranged from coarse sand and gravel in the
6 shallower areas to fine sand and silt and supported a macroepifauna dominated by sea
7 pens (*Stylatula* sp. and *S. elongata*, *Ptilosarcus gurneyi*, *Acanthoptilum* sp., and two
8 species of *Virgularia*), brittle stars (unidentified Ophiuroids and *Ophinoneris* sp.),
9 assorted sea stars (*Petalaster [Luidia] foliolata*, *Rathbunaster californica*, and, in the
10 inshore portions, *Pisaster brevispinus*). Cerianthid and other anemones
11 (*Pachycerianthus* sp., *Urticina piscivorus*, *Urticina* sp., and *Stomphia coccinea*,
12 respectively), cancer crabs including the slender crab (*Cancer gracilis*) and octopus
13 (*Octopus rubescens*) were common to abundant within the sedimentary habitat in this
14 water depth range.

15 Fish observed within the shallower portions of these segments, 105 to 250 feet (32 to
16 76 m), included tonguefish (*Symphurus atricauda*), flatfishes including sanddabs
17 (*Citharichthys* spp.), California halibut (*Paralichthys californicus*), Dover sole
18 (*Microstomas pacificus*), and English sole (*Plueronectes=Parophrys vetulus*), tonguefish
19 (*Symphurus atricauda*), eelpouts (*Lycodes* sp.), poachers (*Agonidae*), cuskeels and
20 rockfish (juvenile and adult). In depths from 250 to 280 feet (76 to 85 m) common fish
21 taxa included eelpouts, poachers, sculpins (*Cottidae*), and skates (*Raja* sp.). In depths
22 greater than 280 feet (85 m), pink surfperch (*Zalembeius rosaceus*), hagfish (*Eptatretus*
23 *stouti*), poachers, rockfish, anchovies, tonguefish, skates, flatfish including sanddabs and
24 sole (*Pleuronectidae*), eelpouts and cuskeels were common to abundant.

25 Segment F, offshore. In water depths greater than 340 feet (104 m), a free-living
26 polychaete “fire worm” (family *Amphinomidae*) was the most commonly observed
27 invertebrate. Other common epibiota observed within the deeper portions of the survey
28 area included several species of previously observed sea pens including *Acanthoptilum*
29 sp. and *Virgularia* spp., and brittle stars (unidentified Ophiuroids, *Amphiodia* sp, and
30 *Amphipholis* sp.). Commonly observed demersal fish observed within these water
31 depths included cuskeels, eelpouts, sanddabs, and hagfish.

32 *Rocky Substrate Invertebrates and Fish*

33 The rocky subtidal habitats within the region supported relatively diverse plant,
34 invertebrate, and fish communities, the composition of which depends on the habitat

heterogeneity and influence of physical factors such as currents, light, temperature, nutrients, and sedimentation (SAIC 2000). Rocky substrates are generally more productive and support a greater diversity of species than soft-bottom habitats (SAIC 2000). The Project-specific ROV survey found that shallow-water (to 100 feet [31 m]), hard bottom areas were typified by low-growing “turf” species comprising encrusting coralline algae and bryozoans, hydroids, tunicates, sponges, and cup corals (*Paracyathus stearnsi* and *Balanophyllia elegans*). Common anemones observed within this depth range included *Metridium farcimen=senile*, *Corynactis californica* and *Urticina lofotensis*, while seastars (*Asterina miniata* and *Henricia laevigata*), and brittlestars (*Amphipholis* sp) were also present. Algae was only found on rocky substrate in water depths of 100 feet (31 m) or less (AMS 2008).

Deeper water rock substrates supported gorgonian corals (*Adelogorgia phyllostera* and *Lophogorgia chilensis*), the purple coral, *Stylaster californicus* (= *Allopora californica*) and white-plumed anemones (*Metridium farcimen=senile*). According to AMS, 2008, the rock substrate within Segment E, where the proposed cable route crosses a low-relief rock feature in approximately 235 feet (72 m) of water, gorgonian corals, the plumed anemone, and unidentified encrusting bryozoans were the most common epibiota observed. That report does not identify the location or specific water depth of the features that supported *Stylaster*. Rocky substrate-associated fish species observed during the ROV survey included adult and juvenile rockfishes (*Sebastes* spp.), lingcod (*Ophiodon elongatus*), cabezon (*Scorpaenichthys marmoratus*) and painted greenling (*Oxylibius pictus*).

Special Status Marine Species

For the purpose of this analysis, special-status species are plant and animal taxa listed or proposed for listing as threatened or endangered under the Federal Endangered Species Act (FESA) and/or the California Endangered Species Act (CESA), Federal or State Species of Concern, and/or candidates for listing, and plant species listed as 1B by the California Native Plant Society (CNPS). In addition, all marine mammals are protected under the Marine Mammal Protection Act, and are, therefore, considered rare for the purposes of this analysis.

Fish

Green sturgeon (*Acipenser medirostris*). In April 2006, NOAA Fisheries published a final finding that the southern population unit (south of the Eel River) of this species was federally threatened. The green sturgeon can reach 7 feet (2.1 m) in length and weigh

up to 350 pounds (159 kg). Very little is known about the green sturgeon's life history; however, it is an anadromous fish that spends most of its life in salt water and returns to spawn in fresh water. In North America, green sturgeon are found from Ensenada, Mexico, to Southeast Alaska. They are not abundant in any estuaries along the Pacific coast, although they are caught incidentally in the estuaries by the white sturgeon fishery (Pacific Fisheries Management Council [PFMC] 1996). This species is found in water depths of up to 400 feet (122 m) in the ocean (Miller and Lea 1972). Critical habitat for this species has been proposed and in 2008, NOAA Fisheries released their findings. That proposed critical habitat includes several rivers and estuaries and the marine waters inshore of 361 feet (110 m) north of Monterey Bay. No proposed critical habitat is within the marine or aquatic habitats of the Project site (Federal Register 2008).

Rockfish (*Sebastes spp.*). Many rockfish species within the eastern Pacific are considered to be over fished and/or have depleted populations. Three species: yelloweye, bocaccio, and cowcod (*Sebastes ruberrimus*, *S. paucispinis*, and *S. levis*, respectively) are either being considered candidates for listing under the ESA and/or have had substantial restrictions placed on the commercial fishery.

The yelloweye rockfish is viviparous (give birth to live young) and the adults are usually associated with rocky reefs and boulder fields; however, the young are found in shallower regions. This species usually feeds on fishes and crustaceans and is found in water depths of 150 to 1,200 feet (46 to 366 m). Bocaccio adults are usually found over rocky reefs, but are also common on open bottoms to about 1,050 feet (320 m). Juvenile bocaccio are pelagic and settle in nearshore nursery areas before moving to deeper habitats where the young form schools. Like most rockfish, bocaccio feed mainly on fishes including other rockfishes (Fishbase 2008, Miller and Lea 1972).

The cowcod is one of the largest Pacific rockfish and is usually found on the bottom at moderate depths, to 1,200 feet (366 m) (Fishbase 2008, Miller and Lea 1972). Like the bocaccio, this species is viviparous with planktonic larvae. The juveniles are pelagic and found inshore in water depths of 70 feet (21 m) or more over fine sand and clay, whereas adults inhabit deeper rocky areas.

Marine Mammals

All marine mammals are protected under the 1972 Federal Marine Mammal Protection Act (MMPA). In addition, many are listed as threatened or endangered by the Federal and/or State resource agencies. Within the Project area, baleen whales, dolphins, sea

lions, harbor seals, and sea otters could be expected within Estero Bay. Disturbing, harassing, injuring, or killing a protected species is prohibited by the MMPA.

Thirty-four of the 111 marine mammal species known worldwide have been recorded off the central and southern California coast (Padre 2005b). Twenty-seven of these mammals are cetaceans. The remaining seven marine mammal species are represented by six species of pinnipeds and an otarid, the California sea otter. Many cetaceans are transient and move through the offshore central California waters. In Estero Bay, the most common cetaceans are two Odontocetes (toothed whales), the common dolphin and coastal bottlenose dolphin, and two Mysticetes (baleen whales), the California gray whale and humpback whale.

Bottlenose dolphin (*Tursiops truncatus*). The bottlenose dolphin population has been tentatively separated into a coastal form and offshore form. The coastal form is found primarily within 0.6 mi (1 km) of the shore and often enters the surf zone, bays, inlets, and river mouths (Leatherwood *et al.* 1987). The most recent estimates of the coastal form indicated that approximately 290 individuals are known to occur and the offshore population is estimated at 2,295 (Carretta *et al.* 2008).

Common dolphin (*Delphinus* spp.). Common dolphins are found worldwide and are the most abundant cetaceans in California waters (Bonnell and Dailey 1993). Common dolphins account for 57 to 84 percent of the total seasonal cetacean population in the Southern California Bight (Dohl *et al.* 1981). Two recognized species of common dolphin are found in central and southern California waters. The long-beaked common dolphin (*Delphinus capensis*) is commonly found within about 55 mi (88 km) from the coastline. Its relative abundance changes both seasonally and annually, with the highest densities observed during warm water events. A recent population estimate for this species is about 1,152 (Carretta *et al.* 2008). The more numerous short-beaked common dolphin (*D. delphis*) ranges from the coast to 340 mi (550 km) offshore. The most recent estimates indicate the California-Washington population of this species to be 392,687 individuals making it the most abundant cetacean off California (Carretta *et al.* 2008). California common dolphins are very gregarious and are frequently encountered in herds of 1,000 or more. Because populations tend to vary with water temperature, no long-term population trends have been determined at this time (Carretta *et al.* 2008).

California gray whale (*Eschrichtius robustus*). The gray whale population growth rate was about 3.3 percent per year between 1968 and 1988 (NOAA 1993) and, following

three years of review, was removed from the endangered species list on June 15, 1994. The most recent estimates of eastern North Pacific gray whale indicated that approximately 17,752 individuals are known to occur (Carretta *et al.* 2008). Gray whales are observed during their annual migratory periods, which extend from February to May (northbound) and November to February (southbound) (Bonnell *et al.* 1980). Grey whales migrate through central California twice annually; during the southern migration occurring from November through February, and from March through June, during their northern migration.

Humpback whale (*Megaptera novaeangliae*). The humpback whale is an endangered species due to intensive historical commercial whaling. Humpbacks are distributed worldwide and undertake extensive migration in parts of their range (Leatherwood *et al.* 1982, NMFS 1991). The population in the Project area is referred to as the eastern Northern stock; individuals spend the winter to spring months in coastal Central America and Mexico for breeding and calving, and migrate to the coast of California to southern British Columbia in summer/fall to feed. The most recent estimates of humpback whale indicate that at least 1,158 individuals are known to occur off California, Oregon, and Washington (Carretta *et al.* 2008). This population estimate is anticipated to be increasing (Carretta *et al.* 2008).

Pacific harbor seal (*Phoca vitulina*). Pacific harbor seals range from Mexico to the Aleutian Islands. The most recent minimum population estimates of the California stock indicate that at least 31,600 individuals are known to occur (Carretta, *et al.* 2008). After increases in the 1990s, this population is believed to be stable and possibly reaching its carrying capacity (NMFS 2005).

California sea lion (*Zalophus californianus*). California sea lions, which range from Baja California to British Columbia, are common in California coastal waters, and frequently sighted in and around Morro Bay (Morro Bay National Estuary Program [MBNEP] 2000a). The most recent population estimates for the California sea lion United States' stock indicate that at least 141,842 individuals are known to occur in California (Carretta, *et al.* 2008).

The southern sea otter (*Enhydra lutris*). The southern sea otter is a federally threatened species that ranges from Alaska to southern California. The California population is considered a sub-species (*Enhydra lutris nereis*) because of its disjunctive and restricted distribution. Although the sea otter was nearly extirpated by the fur trade during the 18th and 19th centuries, the population's size off the coast of California is

approximately 3,026 animals and is experiencing a slight increase from previous years (US Geological Surveys [USGS] 2007). Sea otters are recorded along the central California coast, and individuals may utilize nearshore kelp beds in Estero Bay as rafting and feeding areas (Padre 2005b).

Marine Birds

Several of the bird species having the potential to occur within the Project site have been afforded protected status by the State and/or Federal governments due to declining populations and habitats. A listing of the status of these marine bird species is provided in Table 4.3-9 and a brief description of each special-status marine bird species is summarized below.

Table 4.3-9. Summary of Information for Special Status Marine and Shorebird Species within the Project Vicinity

Species Name (Common/Scientific)	Status ¹	Distribution in Project Vicinity
Double-crested cormorant (<i>Phalacrocorax auritus</i>)	CSC	The double-crested cormorant formerly bred on coastal cliffs and offshore islands along the coast from Marin Co. south to La Jolla, San Diego County. However, coastal breeding populations have declined in southern and central California.
Elegant tern (<i>Sterna elegans</i>)	CSC	Elegant terns breed on islands in the Gulf of California (90% of the known population is on Isla Rasa), along the west coast of Baja California, and near San Diego, California (since 1959). Post-breeding birds commonly occur north to the central California coast from mid-summer through fall. This species winters along the coast of western South America, from Peru to Chile.
California gull (<i>Larus californicus</i>)	CSC	This species is an abundant visitor to coastal and interior lowlands during the non-breeding season (mid-August to mid-April), and may be found in a variety of local habitats including: sandy beaches, mudflats, rocky intertidal, pelagic areas (offshore waters), fresh and saline emergent wetlands, lakes, rivers, cropland, landfills, and open lawns within urban areas.
California brown pelican (<i>Pelecanus occidentalis californicus</i>)	SE, FE, P (nesting colony)	California brown pelicans can be observed year-round within Estero Bay, though nesting is largely restricted to the sides and top of Morro Rock. Pelicans use the Estero Bay region to forage for food, and feed heavily during the summer months on seasonally abundant northern anchovy and sardine.
Ashy storm petrel (<i>Oceanodroma homochroa</i>)	CSC	The Ashy storm petrel breeds on islands from northern California south to northern Baja California. It is a pelagic species (spends most of the time offshore) and comes ashore only to breed.

1

Table 4.3-9. (Continued)

Species Name (Common/Scientific)	Status ¹	Distribution in Project Vicinity
California least tern (<i>Sterna antillarum browni</i>)	SE, FE, P (nesting)	The California least tern is a migrant species only found along the California coast during the April through December breeding season. Nesting occurs on sandy or gravelly substrate at barren or sparsely vegetated sites relatively free from human disturbance. No nest sites have been identified within the Project site; however, this species may forage off the beach near the Project site.
Western snowy plover (<i>Charadrius alexandrinus nivosus</i>)	FT, CSC	Locally, the CNDDB maps a single occurrence of this species north of Morro Rock on Morro Stand Beach; however, nesting snowy plover are seasonally abundant on the offshore exposure of the Morro Bay sandspit.

¹CSC=California Species of Concern; SE=State Endangered; FE=Federal Endangered; P=Protected; ST=State Threatened.

Double-crested cormorant (*Phalacrocorax auritus*). This cormorant is listed as a California Species of Special Concern. The Double-crested cormorant formerly bred on coastal cliffs and offshore islands along the coast from Marin County south to La Jolla, San Diego County, and in the interior in northeastern California, the Sacramento Valley, the San Joaquin Valley, and the Salton Sea; however, coastal breeding populations have declined in southern and central California. This species nests in colonies in nests built in trees and shrubs and on the ground of rocky cliffs and islands. Prey consists of fish and marine invertebrates from the water's surface.

Elegant tern (*Sterna elegans*). The elegant tern is listed as a "California Species of Special Concern" and may be found at coastal areas within Humboldt County and Marin County south to Baja California in Mexico. This species congregates on beaches and tidal flats when not feeding, and forages primarily within shallow ocean waters beyond the surf zone. Primary prey consists of fish. This species was initially a rare and irregular post-nesting visitor to California but numbers have been increasing since the 1950s, and large flocks can now be seen. Breeding primarily occurs within Mexico and extreme southern California. During 1959, a colony was established at San Diego Bay. This colony has persisted and may have facilitated the species' range extension into the central coast of California (Zeiner, *et al.* 1990).

California gull (*Larus californicus*). The California gull is designated as a "California Species of Special Concern". This species is an abundant visitor to coastal and interior lowlands during the non-breeding season (mid-August to mid-April), and may be found in a variety of local habitats including: sandy beaches, mudflats, rocky intertidal, pelagic

1 areas, fresh and saline emergent wetlands, lakes, rivers, cropland, landfills, and open
2 lawns within urban areas. This omnivorous species feeds on garbage, carrion,
3 earthworms, insects (adults and larvae), brine shrimp, and young birds. This species
4 nests in colonies at alkali and freshwater lacustrine habitats east of the Sierra Nevada
5 and Cascades (Zeiner, *et al.* 1990).

6 California brown pelican (*Pelecanus occidentalis californicus*). This species is listed as
7 "Federal Endangered", "California Endangered", and "California Fully Protected".
8 Brown pelicans forage within estuarine, subtidal, and pelagic waters and feeds almost
9 entirely on fish that are caught by diving from a distance of 20 to 40 feet (6 to 12 m)
10 above the water surface. Locally, brown pelicans can be observed at all times of the
11 year within Estero Bay, though nesting is largely restricted to the sides and top of Morro
12 Rock. Pelicans use the Morro Bay, though nesting is largely restricted to the sides and
13 top of Morro Rock. Pelicans use the Estero Bay region to forage for food, and feed
14 heavily during the summer months on seasonally abundant northern anchovy and
15 sardine. While pelicans may forage in the nearshore region of the proposed Project,
16 nesting habitat does not exist at this location. Following the breeding season,
17 individuals leave the breeding colonies and disperse along the California and Mexico
18 coastlines, with some small numbers visiting the Salton Sea and Colorado River
19 Reservoirs (Zeiner, *et al.* 1990).

20 Ashy storm petrel (*Oceanodroma homochroa*). The ashy storm petrel is designated as
21 a "California Species of Special Concern", and is a small smoke gray seabird with a
22 forked tail. It can only be found on the islands off California and in the adjacent waters
23 of the continental slope. This species nests in cavities on offshore islands and move to
24 and from their colonies at night. Unlike most other species of storm-petrel, ashy storm
25 petrels do not travel far from their colonies after breeding, and the breeding season is
26 spread out over most of the year.

27 California least tern (*Sterna antillarum browni*). This species is designated as "Federal
28 Endangered", "California Endangered" and "California Fully Protected". The California
29 least tern is a migratory species that usually arrives in California breeding territories in
30 late April. This species forages for small epipelagic fish (anchovy, atherinids, and
31 shiner surfperch) within estuaries, lagoons and nearshore waters. Least terns are
32 present at nesting colonies from April through August. Preferred nesting habitat for this
33 species is open or sparsely vegetated, sandy or gravelly shores, located near shallow-
34 water feeding areas, which are relatively free of human or predatory disturbance. This

1 species abandons nesting areas readily if disturbed. Courtship typically occurs at
2 beaches near the nesting colonies (Zeiner *et al.* 1990).

3 Western snowy plover (*Charadrius alexandrinus nivosus*). The Western snowy plover is
4 designated as "Federal Threatened" and "California Species of Special Concern". This
5 subspecies of snowy plover occurs on coastal beaches from Washington to Baja
6 California and they require sandy, gravelly, or friable soil substrate for nesting. Nesting
7 sites, which consist of sand beaches and dunes, are utilized from April through August.
8 Snowy plover nests consist of a shallow depression which is either surrounded with
9 driftwood, rocks, or bushes or it may be entirely in the open (Zeiner *et al.* 1990).
10 Nesting at historic nesting sites (coastal sandy beaches) has declined due to human
11 disturbance.

12 Western snowy plovers are preyed upon by gulls, ravens, coyotes, and skunks. This
13 species relies on camouflage for cover, and often crouches motionless on sandy
14 substrate (Zeiner *et al.* 1990). During the breeding season, adults generally do not
15 wander far from the nest (Zeiner *et al.* 1990), and this population may forage within the
16 Project area (Padre 2001).

17 Western snowy plover feed by gleaning insects and amphipods from the dry sand of
18 upper beaches, and may occasionally forage in wet sand for sand crabs. Locally, the
19 California Natural Diversity Database (CNDDDB) indicates a single occurrence of this
20 species north of Morro Rock on Morro Stand Beach; however, nesting snowy plovers
21 are seasonally abundant on the offshore exposure of the Morro Bay sandspit.

22 Based on the analyses, the special status species listed in Table 4.3-10 could occur
23 within the offshore cable corridor and could be affected by the proposed marine-related
24 cable installation operations.

25 **Essential Fish Habitat (EFH)**

26 The following is a summary of the Essential Fish Habitat Assessment (EFHA) for the
27 proposed Project. The complete EFHA is provided in Appendix G. Distribution and
28 habitat information available in Miller and Lea (1972) and Leet, *et al.* (2001) was used to
29 estimate which of the managed species could occur in the Project area. Based on
30 those criteria, a total of 94 taxa, including five from the Coastal Pelagics, three from the
31 Pacific Salmon, 77 from the Pacific Groundfish, and nine from the Highly Migratory
32 groups provided in the various NOAA Fisheries documents, could potentially occur
33 within the Project area. A detailed species list is in Appendix G.